

## ABSTRACT OF THE DISCLOSURE

A separator of a proton exchange fuel cell. In a cell stack of a proton exchange fuel cell, the cell stack composed by laminating a plurality of unit cells and a plurality of separators, each of the unit cells composed of an anode electrode, a cathode electrode and a solid polymer electrolytic membrane arranged between the anode and cathode electrodes, each of the separators arranged between the unit cells, respectively, the separator of the proton exchange fuel cell includes a separator substrate and a multi-coating layer formed on the separator substrate. The multi-coating layer includes at least two layers of a low electric resistance layer, a corrosion resistance layer and a peeling resistance layer.